Department of Development Services

Building Division

4701 W. Russell Rd • Las Vegas NV 89118 (702) 455-3000 • Fax (702) 221-0630

Ronald L. Lynn, Director/Building Official

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Highlighted excerpts are from the Building Administrative Code of Clark County

SUBJECT: TG-21-2008 SPECIAL INSPECTION RESPONSIBILITIES

1.0 PURPOSE: Special Inspections (BAC 22.02.510)

In addition to the inspections required elsewhere in this Chapter, certain types of work shall have special inspections. The special inspections shall be conducted by the Building Official or by an approved Quality Assurance Agency, as directed by the Building Official.

Special inspections conducted by an approved Quality Assurance Agency shall be performed as provided in this chapter. Methods for complying with special inspection requirements are found in the Technical Guidelines.

2.0 SCOPE: The general responsibilities of the Project Owner, Permit Holder, Clark County

Building Division, Quality Assurance Agency and Special Inspector are briefly

stated to clarify lines of communication.

3.0 ABBREVIATIONS & ACRONYMS:

BAC Building Administrative Code of Clark County

CCDDS-BD Clark County Department of Development Service – Building Division

QAA Quality Assurance Agency

QSM Quality Systems Manual

TG Technical Guideline

APPROVED DATE: November 13, 2008 EFFECTIVE DATE: December 1, 2008

Revised By:	Concurred By:	Approved By:
/s/	/s/	/s/
Jonathan A. Bahr, P.E. Senior Engineer	John S. Telford, P.E. Principal Engineer	Theodore L. Droessler, P.E. Manager of Engineering

4.0 DEFINITIONS:

For the purposes of this technical guideline certain terms, phrases, words and their derivatives shall be construed as specified in this section or the Building Administrative Code of Clark County.

5.0 REFERENCES:

Building Administrative Code of Clark County

International Building Code – current adopted edition as amended

TG-16 Quality Assurance Agency Obligations

TG-20 Special Inspector Responsibilities

TG-50 Final Report Requirements

TRG Technical Reporting Guideline

6.0 RESPONSIBILITIES:

6.1 Owner:

6.1.1 Special Inspection Agreement: (BAC 22.02.510)

Projects designated by the Building Official as requiring special inspection by an approved Quality Assurance Agency shall not be issued a permit until the Special Inspection Agreement is executed by the owner, or owner's agent, the designated Prime Agency, and the Building Official.

6.1.2 Principal Design Professional: (BAC 22.02.230)

A principal design professional shall be designated for any project which requires multiple disciplines (i.e., architectural, structural, mechanical, electrical, etc.). The principal design professional shall be responsible for the coordination of each aspect of the construction documents. The design professional in responsible charge of the design work shall specify in the construction documents all special inspection.

6.2 Clark County Building Division:

6.2.1 Inspections: (BAC 22.02.435)

All work for which a permit is required shall be subject to inspection by the Building Official. In addition, certain types of work shall have continuous inspection as determined by the Building Official.

6.2.2 Pre-Construction Conference:

The Supervising Building Inspector may arrange a conference for a project with an active permit with the project contractor, the design team, structural subcontractors, earthwork subcontractors, foundation subcontractors and the designated QAA prior to commencing work on any portions of construction requiring special inspection.

The purpose of such a conference is to identify and clarify the special inspection requirements for the project, construction schedule and CCDDS-BD requirements. Related matters may be discussed to further accomplish the objectives of special inspection. Pre-construction conference agenda for geotechnical and structural projects are attached.

6.2.3 Additional Special Inspectors:

Additional special inspectors may be required, as determined by the Building Official, where the magnitude or complexity of a specific job is determined to require additional special inspectors.

Permit Holder:

6.3.1 Special Inspection Requests: (BAC 22.02.510)

Special inspection requests shall be coordinated between the designated prime agency and the contractor. The permittee is responsible to establish and maintain communication with the special inspectors throughout the construction process. The permittee shall provide sufficient notice to the prime agency to schedule special inspection services. Construction is subject to stop work for failure to establish and maintain the required special inspection process. The permittee shall verify that the prime agency has the most current set of approved construction documents.

6.3.2 Inspection Access: (BAC 22.02.440)

It shall be the duty of the permittee to provide access to and means for proper inspection of work. The permittee shall cause the work to be exposed for inspection purposes until approved by the Building Official. Neither the Building Official nor Clark County shall be liable for expenses entailed in the removal or replacement of any material required to allow inspection.

6.3.3 Inspection Record Card, Permit, and Approved Plans (BAC 22.02.450)

Work for which a permit is required shall not be commenced until the permittee has made available an inspection record card, approved permit, and approved construction documents on the premises and in such a position as to allow the Building Official convenient access and use. These items shall be maintained in such location by the permittee until final approval has been granted by the Building Official.

6.3.4 Tests (BAC22.02, 085)

Whenever there is insufficient evidence of compliance with the provisions of the technical codes, or evidence that a material or method does not conform to the requirements of the technical codes, or in order to substantiate claims for alternate materials or methods, the Building Official shall have the authority to require tests at no cost to the County to provide verification of compliance. Test methods shall be as specified within the technical codes or by other recognized test standards. In the absence of recognized and/or accepted test methods, the Building Official shall approve the testing procedures. Tests shall be performed by an approved or recognized agency. Reports of such tests will be retained by the County as required by law.

6.3.4.1 If the work that require special inspection was performed by an unapproved inspector or was not inspected as required in the Quality Assurance Agency

Special Inspection Agreement, the work will be deemed deficient and corrective actions will be required from the owner and contract in a written work plan. The Registered Design Professional in responsible charge of the work, the designated Prime Agency or both shall submit a written work plan to CCDDS-BD for review and approval. The work plan must identify the lateral and vertical extent of the deficient work, propose a method to verify that the work complies with the approved construction documents or propose a method to bring the work in compliance with the approved construction documents. Once CCDDS-BD approves the work plan, verification activities are authorized. Once verification activities are complete, a report of verification activities shall be submitted to CCDDS-BD for review and approval. Once approved, CCDDS-BD will notify the permit holder that work in the area identified in the approved work plan is authorized to continue.

6.4 Quality Assurance Agency:

6.4.1 Assigned Special Inspectors.

Approved special inspectors shall be assigned to the project until all required inspections are completed to the satisfaction of the Building Official. Testing required by the Approved Construction Documents and Technical Codes shall be performed by special inspectors of the QAA working to an approved QSM.

6.4.2 Special Inspection Report File.

Daily Report by Special Inspector ([22.02.525(B)(2)]. All daily reports prepared by a special inspector pursuant to this Chapter and the technical guidelines are the property of Clark County and shall be made available upon request by the Building Official.

The QAA shall maintain an inspection report file on the construction site to allow CCDDS-BD inspectors to conveniently review reports. This file shall be maintained on site until final approval of all work requiring special inspection is completed.

- 6.4.3 Notification([22.02.525(A)(3)] Duties and Responsibilities of the Quality Assurance Agency, Designated Residential Inspector and Special Inspector)

 The approved agencies shall notify the Building Official of commencement of special inspection activities on a project. Notification shall be done through the filing of a Project Startup & Notification form (Form 803).
- 6.4.4 Notification([22.02.525(B)(2)] Duties and Responsibilities of the Quality Assurance Agency, Designated Residential Inspector and Special Inspector)

 The approved special inspector shall immediately notify the contractor and the Building Official in writing of non-conformance to the approved construction documents, or other violations of the technical codes within the scope of their special inspection activities. Notification shall be within 24 hours and may be accomplished by fax.
 - 6.4.4.1 Work identified in a non-conformance report must not be concealed or incorporated with other work. The permit holder is responsible to provide timely resolution to all outstanding non-conforming items. The permit holder is responsible to coordinate resolution activities with the designated Prime QAA and CCDDS-BD.

6.4.5 Subcontracted Inspection ([22.02.510(C)]. The Prime Agency designated on the special inspection agreement may subcontract special inspection services to other approved agencies. The prime agency is responsible for overall coordination and issuance of the final report. The Prime Agency and the subcontracted agency shall notify the Building Official in writing. The written notification shall identify the Prime Agency, the subcontracted agency, and the division of scope of work prior to commencement of the work. The engineering manager of the Prime Agency shall provide a written declaration that they are in responsible charge of all subcontracted special inspections. The Prime Agency is responsible for notifying the Building Official in writing of any changes in the designated subcontracted agencies. Notification shall be done through the filing of a Declaration of Subcontracted Special Inspections (Form 803).

6.4.6 Quality Management.

Responsibilities are outlined in Technical Guideline 16.

6.4.7 Engineering Management

Responsibilities are outlined in Technical Guideline 16.

6.4.8 Final Report

The QAA shall maintain all records of inspections and related testing and submit a final report to CCDDS-BD Inspection Services.

- **6.4.8.1** The final report shall be prepared in accordance with Technical Guideline TG 50.
- **6.4.8.2** The final report shall be submitted at least seven days prior to requesting a final inspection.

6.5 <u>Special Inspector Responsibilities (</u>22.02.525 Duties and Responsibilities of the Quality Assurance Agency, Designated Residential Inspector and Special Inspector)

6.5.1 Inspection, Testing and Reporting [22.02.525(A)(2)]

The approved special inspector shall inspect the types of work identified in the Special Inspection Agreement for conformance with the approved construction documents and the technical codes. The approved special inspector shall report to the job sufficiently in advance of the commencement of work to become familiarized with the approved construction documents. The approved special inspector shall write a non-compliance report when approved construction documents or the permit are not available on the premises at the time of the inspection. The special inspector shall immediately notify the contractor and shall immediately submit a copy of the noncompliance report directly to the Building Official.

6.5.2 Daily Reports-[22.02.525(B)(2)]

The approved special inspector shall write daily report(s) and provide, as directed by the Building Official such other information as may be required within the scope of the special inspector's duties. The approved special inspector shall furnish inspection reports as required by the technical guidelines. The approved special inspector shall immediately notify the contractor and the Building Official in writing of non-conformance to the approved construction documents, or other violations of

the technical codes within the scope of their special inspection activities. Notification shall be within 24 hours and may be accomplished by fax. All daily reports prepared by a special inspector pursuant to this Chapter and the technical guidelines are the property of Clark County and shall be made available upon request by the Building Official.

6.5.3 Additional responsibilities are outlined in Technical Guideline 20.

7.0 PROCEDURE:

- 7.1 This guideline is intended for the permit holder. The basic responsibilities are outlined in an effort to provide better communication and understanding of the various responsibilities involved in the construction process from a special inspection point of view.
- 7.2 This guideline is to be presented during pre-construction conferences established to discuss the special inspection process.
- 7.3 Pre-construction conferences are at the discretion of the Supervising Building Inspector.
- 7.4 The permit holder may request a pre-construction conference through the Supervising Building Inspector.

8.0 RECORDS:

Not applicable.

9.0 ATTACHMENTS:

Preconstruction Conference Agenda-Geotechnical Preconstruction meeting Agenda-Structural

10.0 REVISION HISTORY:

Title	Revision/Approved Date	Effective Date
TG-21-2008	November 13, 2008	December 1, 2008
TG-21-2006	October 20, 2006	November 1, 2006
TG-21-2000	December 26, 2000	January 31, 2001



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PRE-CONSTRUCTION CONFERENCE AGENDA STRUCTURAL

Pursuant to Technical Guideline TG-21, a pre-construction conference may be required prior to the start of any major project. This conference may be initiated by the permit holder, owner, or Clark County Department of Development Services-Building Division (CCDDS-BD). Certain individuals/Firms are required to attend this conference as specified below.

- 1. Purpose of conference
 - a. Outline responsibilities
 - b. Identify and clarify the special inspection requirements for the project
 - c. Identify and clarify CCDDS-BD requirements
- 2. Introduction of attendees
 - a. Principal Registered Design Professional, Registered Design Professional (when required)
 - b. **Project superintendent** (REQUIRED)
 - c. **CCDDS-BD structural section** (REQUIRED)
 - d. Quality Assurance Agencies (QAA). The designated **Quality Manager** or **Engineering Manager** must be present (REQUIRED)
 - e. Owner's representative (when required)
 - f. Representatives from all structural subcontractors and structural material suppliers (when required)
- 3. Contractor's Presentation
 - a. **Scope** of work and **timelines**
 - b. Permit status and **Special inspection** requirements
 - c. Phased Construction
 - d. Safeguards during construction
 - e. **Deferred** submittals
 - ✓ Stairs
 - ✓ Joists
 - ✓ Fireproofing
 - ✓ Skylights
 - ✓ EIFS
 - ✓ Other
 - f. Initial curing facilities
 - g. Onsite and offsite fabrication
 - ✓ Approved fabricators
 - ✓ Structural elements
 - ✓ EIFS
 - ✓ Others
- h. Contacts for all subcontractors, RDPs, QAAs, etc.
- i. Location/maintenance of QAA and CCDDS-BD on-site work stations

- 4. Quality Assurance Agency Presentation
 - a. Approval/Ability to perform required special inspection and testing activities
 - b. Proposed project staffing
 - c. Subcontracted inspections and testing services
 - d. **Multiple** QAAs
- 5. CCDDS Building Division Presentation
 - a. **Responsibilities** (TG-21)
 - **✓** Owner
 - ✓ CCDDS Building Division
 - ✓ Permit Holder
 - ✓ Quality Assurance Agency & Subcontracted Quality Assurance Agency
 - ✓ Special Inspector
- b. Monitoring of Special Inspectors
 - ✓ Monitoring Procedures
 - ✓ **After-hours** monitoring
- c. **Enforcement** Process-Clark County
- d. Enforcement Process QAA, NCRs, and resolutions
- e. Required Permits
 - ✓ Fence
 - ✓ Pedestrian protection
 - ✓ Other temporary structures
- f. Required Approvals
 - ✓ Concrete mix design
 - **✓** Grout
 - ✓ Field changes & revisions
 - ✓ Deferred submittals
 - ✓ Fabricators
- g. Required Reports
 - ✓ Pad certification (prior to foundation inspection)
 - ✓ Area acceptance (prior to framing inspection)
 - ✓ Final (prior to TCO/final inspection)
- h. **Interaction** between Building Inspectors, Structural Monitors, and Special Inspectors:
 - ✓ When a special inspection or testing is required by a Quality Assurance Agency, an area acceptance report shall be provided and accepted prior to loading/concealing.
 - ✓ Temporary Certification of Occupancy: parking garage, other structures
- i. Modification of QAA-SIA (add/delete special inspection items)
- j. Overtime for after-hours monitoring by CCDDS-BD
- k. Construction Issues
 - ✓ Steel Construction
 - ✓ Concrete Construction
 - ✓ Masonry Construction
 - ✓ Soils
 - ✓ Piles/Drilled Shafts
 - ✓ Other construction types
 - ✓ Storm water Best Management Practices inspection and enforcement.



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PRE-CONSTRUCTION CONFERENCE AGENDA GEOTECHNICAL

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 - a. Outline responsibilities
 - b. Identify and clarify the special inspection requirements for the project
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- 2. Introduction of attendees
 - a. Principal Registered Design Professional, Registered Design Professional (when required)
 - b. **Project superintendent** (REQUIRED)
 - c. **CCDDS-BD structural section** (REQUIRED)
 - d. Quality Assurance Agencies (QAA). The designated **Quality Manager** or **Engineering Manager** must be present (REQUIRED)
 - e. Owner's representative (when required)
 - f. Representatives from the earthwork contractor and other contractors performing related work: Foundation installation, on-site improvements, etc.
- 3. Contractor's Presentation
 - a. **Scope** of work and **timelines**
 - b. Overview of earthwork operations and other activities within the scope of the permit, including timelines, sequence, etc.
 - c. Permit status and **Special inspection** requirements
 - d. Safeguards during construction
 - e. Contacts for all subcontractors, RDPs, QAAs, etc.
 - f. Location/maintenance of QAA and CCDDS-BD on-site work stations
- 4. Quality Assurance Agency Presentation
 - a. Approval/Ability to perform required special inspection and testing activities
 - b. Proposed project staffing
 - c. **Subcontracted** inspections and testing services
 - d. **Multiple** OAAs
- 5. CCDDS Building Division Presentation
 - a. **Responsibilities** (TG-21)
 - **✓** Owner
 - ✓ CCDDS Building Division
 - ✓ Permit Holder
 - ✓ Quality Assurance Agency & Subcontracted Quality Assurance Agency
 - ✓ Special Inspector

- b. **Monitoring** of Special Inspectors
 - ✓ Monitoring Procedures
- c. **Enforcement** Process-Clark County
- d. **Enforcement** Process QAA, NCRs, and resolutions
- e. Required Permits, where applicable
 - ✓ Temporary structures
- f. Required Approvals, where applicable
 - ✓ Concrete mix design
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- g. Required **Reports**
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 - ✓ Temporary Certification of Occupancy: parking garage, other structures
- i. Modification of QAA-SIA (add/delete special inspection items)
- j. Overtime for after-hours monitoring by CCDDS-BD
- k. Construction Issues
 - **✓** Earthwork
 - ✓ Hillside construction
 - ✓ Mechanical stabilization
 - ✓ Drilled Shaft/driven piles
 - ✓ Temporary construction
 - ✓ Stormwater Best Management Practices inspection and enforcement.